

### **REMARKS/ARGUMENTS**

Claims 17-41 remain in this application. Claim 17-41 are amended to more distinctly describe the claimed invention. No new matter is added by any of these amendments.

#### **A. Priority**

The Office action requests support for printable formulation in the parent application. The applicants respectfully submit that the amendments made to claims 17-41 limit the claims to a more specific printable formulation. Without limiting the teachings in the specification, the applicants agree with the statement in the Office action at page 3 that the specification is enabling for screen printing and inks.

For matter of record, the applicants submit that printable formulations in form of slurry, suspension, paste and ink are taught at least in Example 3 of priority application US 5,905,000 at Col. 8, lines 42-51; in priority application US 5,952,040 at Col. 13, lines 52-67 through Col. 14, lines 1-8; in Example 4 of priority application US 6,202,471 at Col. 10, lines 57-66; and in Example 5 of priority application US 6,228,904 at Col. 10, lines 35-37 and lines 47-58.

#### **B. Rejections under 35 U.S.C. 112**

Claims 17-41 were rejected under 35 U.S.C. 112 first paragraph as lacking support in the specification. This rejection is respectfully traversed.

Claims 17-41, as amended, are supported by the specificationP. Printable formulations in form of slurry (paste and ink) are taught at least in Example 3 of priority application US 5,905,000 at Col. 8, lines 42-51; in priority application US 5,952,040 at Col. 13, lines 52-67 through Col. 14, lines 1-8; in Example 4 of priority application US 6,202,471 at Col. 10, lines 57-66; and in Example 5 of priority application US 6,228,904 at Col. 10, lines 35-37 and lines 47-58. The teachings include printing, spin coating, casting, dipping and the like (see priority application US 5,952,040 at Col. 14, lines 1-8; and US 6,202,471 at Col. 8, lines 5-14).

Claims 17-36 were rejected under 35 U.S.C. 112, first paragraph as failing to comply with the written description requirement. This rejection is respectfully traversed. As discussed above and with the amended claims, the specification provides support for various "formulations." The examples noted above point out formulations that are amongst other things screen printable. Accordingly, it is respectfully requested that the rejection of claims 17-36 be withdrawn.

Claims 17-36 were rejected under 35 U.S.C. 112 second paragraph as being indefinite with respect to composition and process. Specifically, the Office action suggests that a more specific recitation of the composition is required. Claim 17, as amended, specifies metallic fillers with domain size less than 250 nanometers and an aspect ratio greater than one. Independent claim 24, as amended, calls for a formulation comprising ceramic nanofillers with domain size less than 100 nanometers. Claim 32, as amended, calls for nanofillers with domain size less than 250 nanometers and that comprise copper. These limitations are believed to be sufficiently more specific than the limitations that were of concern in the cited Ex parte Slob, 157 USPQ 172. Moreover, as amended, the claimed formulations are now identified as screen printable formulations. Claim 17 and dependent claims identify the composition as metallic. Claim 24 and dependent claims identify the composition as ceramic. Claims 32-33 identify the composition as copper. The applicants therefore submit that the amended claims are in compliance with 35 U.S.C. 112, second paragraph.

Claims 34-41 were rejected under 35 U.S.C. 101 as failing to set out any steps involved in the process. However, claims 34-41 are directed to products, not processes. Accordingly, this rejection should be withdrawn.

For the record, applicants note that the screen printable formulation can be utilized in other processes such as spin coating, casting, dipping and the like taught in the priority applications (e.g. in US 5,952,040 at Col. 14, lines 1-8; and US 6,202,471 at Col. 8, lines 5-14; and elsewhere).

**C. Rejections under 35 U.S.C. 103**

Claims 17, 23, 24 and 30-33 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sacripante et al. (US Patent 5,180,650). This rejection is respectfully traversed.

Sacripante et al. specifically teach the use of particles larger than 0.5 microns at Col. 9, lines 18-24. To quote, the inventors:

*"In embodiments of the present invention, there are provided processes where the magnetic core particle has a particle size diameter of from about 0.5 micron to about 25 microns, and preferably from about 1 micron to about 6 microns as measured by the Coulter Counter, and wherein the magnetic core particle is selected from the group consisting of metals..."*

While Sacripante et al. do mention metal and ferrites with particle size from 20 nanometers to 1 micron, they teach away from these particles because they offer poor performance (at Col. 3, lines 1-20).

The Office action acknowledges that Sacripante et al. are silent with respect to aspect ratio. Particles less than 250 nm need not have an aspect ratio greater than one. Nanoscale powders can be spherical (aspect ratio of 1) or non-spherical (aspect ratio greater than 1). With smaller particle size, the surface energy of a particle is minimized by a spherical shape and therefore, particles tend to take a spherical shape as the size reduces below 250 nanometer. Moreover, the applicants submit that Sacripante et al. do not teach or provide motivation for screen printable formulation that are claimed.

**D. Conclusion**


In view of all of the above, the claims 17-41 are now believed to be allowable and the case in condition for allowance which action is respectfully requested. Should the Examiner be of the opinion that a telephone conference

would expedite the prosecution of this case, the Examiner is requested to contact Applicants' attorney at the telephone number listed below.

No fee is believed due for this submittal. However, any fee deficiency associated with this submittal may be charged to Deposit Account No. 50-1123.

Respectfully submitted,

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